REMARKS

Reexamination and reconsideration of the application are requested.

The examiner's rejection of claims 1-20 as being "anticipated", under 35 U.S.C. 102, is respectfully traversed. The examiner rejects these claims as being unpatentable over Snyder (US 6,355,927). Claims 2-9 depend from claim 1 and claims 11-20 depend from claim 10.

Claims 1 and 10 require a step of calculating a distance moved using an ascending or descending region of a first or second output signal, wherein the first and second output signals are analog first and second output signals of an analog encoder. The output signals of the encoder of Snyder, from which a distance moved is measured, are digital output signals (CH A 350 and CH B 352 - see figures 3 and 7 of Snyder) wherein, "Together, the channel A and channel B output signals 350 and 352 have a total of 16 state changes per cycle of the input ramp signals, thus providing a resolution of 16 states per cycle" (see column 4, lines 41-44 of Snyder). The input ramp signals of Snyder are internal to the encoder and are not encoder output signals. Thus, Snyder can calculate the distance a component has moved only from the state changes of the digital output signals of Snyder's encoder. Therefore, Snyder does not teach, suggest or describe calculating a distance moved using an ascending or descending region of an analog output signal of an encoder as required by applicants' claims 1 and 10.

Claim 1 also requires a step (step c) of calculating the distance moved by the component from the position of the component when the first output signal 10 reached the first high level 22 using an ascending region 26 of the second output signal 12 until the second output signal 12 reaches a second high level 28, wherein the first high level 22 is the crossover level of the ascending first output signal 10 and the inverse 16 of the second output signal and wherein the second high level 28 is the crossover level of the ascending second output signal 12 and the first output signal 10. Snyder's figure 6 has two additional crossover signals at 345 degrees and 360/0 degrees between a component moving from a position corresponding to the first high level crossover at 315 degrees and the second high level crossover at 45 degrees. Snyder is not using an ascending region of the second output signal 304 between a component moving from a

position corresponding to the first high level crossover (at 315 degrees) until the second output signal 304 reaches the second high level crossover (at 45 degrees) because Snyder is using other signals for his other two state-change crossovers which occur between his first and second high level crossovers. It is noted that these same remarks similarly apply to applicants' steps b), d) and e).

Suppose one cycle of Snyder corresponded to a component rotating 16 degrees. Then Snyder can tell when the component has rotated one degree, or two degrees, or three degrees, etc., but Snyder does not teach, suggest or describe how to calculate when the component has rotated, for example, 2.37 degrees. Applicants claims 1 and 10 provide such capability.

Regarding claims 3 and 12, the examiner has alleged that Snyder discloses an analog encoder. Applicants respectfully disagree. Snyder has disclosed an encoder having an emitter section, a code wheel, a detector section, wherein the output signals CH A 350 and CH B 352 of the encoder are digital output signals making the encoder of Snyder a digital encoder. Also, the examiner has alleged that the encoder of Snyder stores signal crossover levels as a map in memory. Applicants respectfully disagree. Snyder does not teach, suggest or disclose a memory or storing anything in a memory.

Regarding claims 5-6 and 14-15, the examiner has alleged that Snyder discloses an analog encoder. Applicants respectfully disagree. As previously mentioned, Snyder has disclosed an encoder having an emitter section, a code wheel, a detector section, wherein the output signals CH A 350 and CH B 352 of the encoder are digital output signals making the encoder of Snyder a digital encoder.

Regarding claims 7 and 16, the examiner has cited column 5, lines 10-27 of Snyder in asserting Snyder discloses the component being a paper-feed roller powered by a DC motor. Applicants respectfully disagree. Snyder does not teach, suggest or describe that the component is a paper-feed roller powered by a DC motor.

Regarding claims 8 and 17, the examiner has cited column 5, lines 10-27 of Snyder in asserting Snyder discloses the component being a printhead carrier of a printer. Applicants

respectfully disagree. Snyder does not teach, suggest or describe that the component is a printhead carrier of a printer.

Inasmuch as each of the rejections has been answered by the above remarks, it is respectfully requested that the objections and rejections be withdrawn, and that this application be passed to issue.

Respectfully submitted,

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